

Application No. 10/628,368
Reply to the Office action of 01/18/2006

Amendments to the Claims:

This listing of claims will replace all prior versions and listings in the application:

Listing of Claims:

1. (cancelled)
2. (cancelled)
3. (currently amended) The nacelle as defined in claim ~~1~~26, wherein said conduit comprises a tube fixed within said inlet lip.
4. (original) The nacelle as defined in claim 3, wherein said tube is integrally cast within said inlet lip.
5. (currently amended) The nacelle as defined in claim ~~1~~26, wherein said inlet lip is cast and said conduit is integrally cast therewithin.
6. (currently amended) The nacelle as defined in claim ~~1~~26, wherein said conduit comprises a circumferential inner liner fixed to an inner surface of said inlet lip, defining said oil passage between said inner surface of said inlet lip and said inner liner.
7. (original) The nacelle as defined in claim 6, wherein said inner liner and said inlet lip are sheet metal.
8. (currently amended) The nacelle as defined in claim ~~1~~26, wherein said inlet lip comprises reinforcing structural supports.
9. (currently amended) The nacelle as defined in claim ~~1~~26, wherein said inlet lip comprises a plurality of annular conduits therein.
10. (original) The nacelle as defined in claim 9, wherein said plurality of annular conduits are integrally formed within said inlet lip.

Application No. 10/628,368
Reply to the Office action of 01/18/2006

11. (cancelled)
12. (cancelled)
13. (cancelled)
14. (cancelled)
15. (currently amended) The power plant assembly as defined in claim ~~1331~~, wherein said conduit comprises a tube fixed within said inlet lip.
16. (original) The power plant assembly as defined in claim 15, wherein said tube is integrally cast within said inlet lip.
17. (currently amended) The power plant assembly as defined in claim ~~1331~~, wherein said conduit is integrally formed within said inlet lip.
18. (original) The power plant assembly as defined in claim 17, wherein said conduit comprises a plurality of oil passages integrally defined within said inlet lip.
19. (original) The power plant assembly as defined in claim 17, wherein said inlet lip is cast and said conduit is integrally cast therewithin.
20. (currently amended) The power plant as defined in claim ~~1331~~, wherein said conduit comprises a circumferential inner liner fixed to an inner surface of said inlet lip, said oil passage being defined between said inner surface of said inlet lip and said inner liner.
21. (original) The power plant as defined in claim 20, wherein said inner liner and said inlet lip are sheet metal.
22. (currently amended) The power plant as defined in claim ~~1331~~, wherein said inlet lip comprises reinforcing structural supports.
23. (cancelled)

Application No. 10/628,368
Reply to the Office action of 01/18/2006

24. (cancelled)
25. (cancelled)
26. (new) A nacelle for housing a gas turbine engine having a pressurized oil system for lubricating components thereof, said nacelle comprising: an inlet lip defining a leading edge of said nacelle, said inlet lip having a conduit therein in fluid flow communication with said pressurized oil system of said gas turbine engine, said conduit defining an oil passage within which circulates pressurized engine oil therethrough, said conduit being in heat transfer communication with an outer surface of said inlet lip; and a control system to regulate flow of said pressurized engine oil, the control system including at least one sensor for sensing foreign object damage to the oil system and at least one counter-measure apparatus operative to prevent oil leakage from the oil system in the event that said foreign object damage is detected by the said sensor.
27. (new) The nacelle as defined in claim 26, wherein the inlet lip is annular and circumscribes an engine air inlet area therewithin, said conduit being entirely disposed radially outward from the air inlet area.
28. (new) The nacelle as defined in claim 27, wherein the conduit has an inlet and an outlet interconnected by a substantially arcuate flow path extending therebetween and disposed exclusively within said conduit.
29. (new) The nacelle as defined in claim 28, wherein the substantially arcuate flow path extends circumferentially around a substantial portion of the inlet lip.
30. (new) The nacelle as defined in claim 26, wherein the counter-measure apparatus includes a shut-off/isolation mechanism and a by-pass oil passage, such as to divert said pressurized engine oil away from said conduit in the event that such foreign object damage is detected.

Application No. 10/628,368
Reply to the Office action of 01/18/2006

31. (new) A power plant assembly comprising:
- a gas turbine engine having a pressurized oil system for lubricating components thereof;
 - a nacelle housing said gas turbine engine having an inlet lip defining a leading edge of said nacelle;
 - a conduit, defined within said inlet lip, communicating with said pressurized oil system for circulation of engine oil therethrough, said conduit being in heat transfer communication with an outer surface of said inlet lip; and
 - a control system to regulate flow of said engine oil, the control system including at least one sensor for sensing foreign object damage to the oil system and at least one counter-measure apparatus operative by the control system in the event that such foreign object damage is sensed.
32. (new) The power plant assembly as defined in claim 31, wherein the inlet lip is annular and circumscribes an engine air inlet area therewithin, said conduit being entirely disposed radially outward from the air inlet area.
33. (new) The power plant assembly as defined in claim 32, wherein the conduit has an inlet and an outlet interconnected by a substantially arcuate flow path extending therebetween and disposed exclusively within said conduit.
34. (new) The power plant assembly as defined in claim 33, wherein the substantially arcuate flow path extends circumferentially around a substantial portion of the annular inlet lip.
35. (new) The power plant assembly as defined in claim 31, wherein the counter-measure apparatus includes a shut-off/isolation mechanism and a bypass oil passage, such as to divert said engine oil away from said conduit in the event that such foreign object damage is sensed.

Application No. 10/628,368
Reply to the Office action of 01/18/2006

36. (new) A method of preventing ice build up on a nacelle inlet lip and cooling engine oil, comprising the steps of:

providing a nacelle housing a gas turbine engine and having a conduit within an inlet lip thereof defining a circumferential oil passage therein, enabling heat transfer communication between said conduit and an outer surface of said inlet lip;

circulating pressurized engine oil used to lubricate said gas turbine engine through said conduit, thereby cooling said engine oil and heating said outer surface of said inlet lip; and

detecting foreign object damage to the conduit using a sensor of a control system, and restricting a flow of said pressurized engine oil within said conduit using a counter-measure apparatus of the control system in the event that such foreign object damage is detected by the sensor.